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N. E. FARMER.

PRACTICE OF ENGLISH FARMERS IN THE IMPROVEMENT OF PEATY GROUND.

By Ph. Pusey, M. P., President of the Royal Agricultural Society of England.

Although the improvement of peat is not a subject that can be of general interest, yet, as there are large tracts of such land in the country, and as I have had the advantage of observing in my own neighborhood the mode in which it has been improved by good farmers, as well as of receiving information from members of our Society who have reclaimed peat in other districts, I think it may be of some use if I endeavor to describe their various methods of management. Our science, we may hope, would gradually advance, if we could obtain faithful accounts of our actual practice upon each variety of our soil. The peat I am most conversant with, follows generally the borders of all the rivulets in this level stone-brash country. Along the margin of each sandy arable farm, there runs a belt of such poor marshy ground. Long after the meadows are green in spring, these pastures retain the brown of winter: in summer they are covered with rushes and coarse grass, but are of some use for the sheep in dry weather: in autumn they soon return to their withered hue; and in winter again they are scarcely to be passed on horseback. Almost every kind of tree has been planted upon them in vain; but the birch, the alder, and the abele, not the least ornamental of our trees, I have found to grow with some vigor: they are too poor for the willow.

The first step of improvement is of course to acquire command of the water and obtain an outfall by digging a straight ditch, about 8 feet wide and 5 deep, down the middle of the hollow: this takes the place of the winding stagnant rivulet that is frequently found there. In wider bogs more of these ditches should be dug, and one may be placed on each side so as to divide the peat from the sound land, and thus cut off the springs which ooze from the higher ground. However slight the apparent fall of the ground, it is generally practicable, by carrying along the new water-course to a sufficient length, to reduce the level of the water 3 or 4 feet permanently below the surface: this then is the first and indispensable step, the open drainage: the next is the under or close drainage: it has been done on the Deanston principle—thorough draining. The parallel drains have been cut to a depth of 30 inches in the gravel underlying the peat, the materials being tiles and broken stones over the tiles, covered with a sod 16 inches below the surface; the distance between the parallel drains varying from 20 to about 80 feet. The levels are so flat that tiles have been often necessary. It is essential that these drains should be formed before the surface is broken up, that the work may be clean for the laborers: winter and early spring will be the most convenient seasons. In Lincolnshire, however, the heavy expense of under-draining has not been required. Deep open ditches, dividing the peat into fields of 12 or 15 acres, have been found to lay it sufficiently dry.

When the draining, of whatever kind, is completed, the question next arises how the coarse and rushy swamp is to be brought into cultivation. I must say that the practice of paring and burning the surface, employed by our farmers, has been justified by its effects. As soon as the harsh easterly winds of spring have set in, the breast-plows are put to work, the surface is pared and turned over, and, when dry, piled in heaps and burnt to ashes. The proceeding may be defended I think on these grounds:—If the coarse sward filled with the roots of rushes were merely plowed over, it would not decay during the whole summer, and would be far too tough and hollow for any crop that might be sown on it. Again, when a fertile well-dressed surface is burnt, the volatile parts of manure which it contains, may be dissipated by fire, but on the land we are dealing with, there is no fertility to be destroyed. Lastly, the ashes which are produced, are a manure peculiarly adapted for the crop which experience has taught the Lincolnshire farmers to make their first crop on such land; that crop is rape, a plant not generally grown in this country. On such ground so prepared, it shoots up with unfailing luxuriance, resembling the tops of strongly growing swedes, but forming a dense mass of dark leaves, about a yard high, through which it is difficult to make one's way. Although peat may be well suited to the growth of rape, it is to the peat-ashes I believe that the chief strength of its vegetation is due. In fields where the soil is moory but not a pure peat, when they have been pared and burnt in the same manner, a singular appearance presents itself which proves this point. On the spots where the heaps have been burnt, may be seen dark tufts of rape growing in the vigorous manner already described. On the rest of the ground you can hardly distinguish the pale blue or purple dwindled plants of rape scarcely raising themselves from the surface and choked with grass. This fact illustrates in some degree the chemical laws of the food of plants; for Dr. Liebig states that peat ashes contain a small proportion of potash: I believe that the rape itself also contains potash: hence probably the wonderful influence of peat-ashes upon its growth. There is also a further circumstance which may be remarked; the quantity of ashes which thus occasions the difference between a strong plant 3 feet high and a feeble weed of a few inches, is very small; but, of that small quantity, the potash and other salts which enter into the composition of the plant and enable it to bring forth its tall stem and broad leaves, are still more minute: the ashes cannot then be called the food of the plant; they can only aid the plant to make use of the other matters of which its vegetable frame is formed; yet they act precisely as farm dung, which is supposed to afford the substance of vegetation. Such is the fact; the explanation remains for that chemist who at some future day shall unfold to us the great mystery of the food of plants.

I have omitted to mention the manner in which the rape or swedes are sown; and, in now adverting to it, I have to state an instance in which the knowledge of a practical farmer was better than my own theory. I had been very desirous that one of my tenants should subsoil-plow his peat land after it had been drained, in order to let down the water through the tenacious subsoil: this he was very reluctant to do, because in his opinion it could not be plowed too shallow. He was unwilling even to plow it 4 inches deep, thinking the depth of 2 inches enough. Now it happened that in a peaty field of my own, which had just been broken up, one half of the 25 acres was plowed 2 inches deep, the other half, contrary to my intentions, 4 inches deep. On the half which had been plowed shallow, I found a very fine growth of swedes; on the other, which had been plowed deep, about 8 acres were almost perfectly bare, nearly every plant having been destroyed by the wire-worm. The looseness of the ground arising from the deeper stirring, may have rendered the progress of the wire-worm more easy; but I think the true cause of the destruction was the enfeebled state of the plant, in consequence of which it perished under the attack which greater vigor would have enabled it to survive. This I believe is often the case, and certainly under the strong swedes on the firmer land, an equal number of wire-worms was to be found. The farmers in fact here, led by experience, carry to a great length the principle of keeping such poor light ground as tight as possible. I should have mentioned that the rape is planted by sowing it broadcast on the unmoved ground after the ashes of the first breast-plowing have been spread, the seed being afterwards covered by paring and turning over another thin slice of the surface in a second breast-plowing. On one farm, 50 acres of land, which though not peat are peaty, and equally loose in texture, were broken up from grass three years ago, and have been cultivated ever since by the breast-plow alone. I did try the subsoil plow last year on two acres of peat, cutting through a subsoil of weak clay, and it appears to me that the present crop of swedes has suffered materially by the consequent looseness of the ground, the land being but half covered with plants: indeed, although it has been thorough drained, it has returned to the state of bog, and is once more almost impassable. It is right, however, to mention that in Lincolnshire deeper plowing is practiced. Mr Handley writes to me, "the peat is plowed as deep or deeper than other lands. A relative of mine has for years been in the practice, when the surface has become exhausted by cropping, of plowing with two plows in the same furrow, depositing the top soil in the bottom of the furrow, and raising the subsoil from the depth of fourteen inches to the top, with most beneficial results; but if that depth was exceeded, the following crops were bad." But even there the practice is not unanimously approved, and Lincolnshire farms have been by no means exempt from the wire-worm. On Exmoor, too, in Somersetshire, I have lately seen subsoil plowing practiced upon peat by Mr Knight

with success; but there the peat, about 8 inches thick, rests on one or two inches only of retentive earth, to which its growth is owing. Below this crust a porous stone-brash is found. The wetness of the climate may also remedy the hollowness of soil produced by the subsoil-plow. The shallow plowing of our farmers seems to me to be decidedly right upon our own peaty and other loose soils.

I may mention another mode in which this principle has been applied with success for some years by Mr Williams, at Buckland, on a light blowing sand, as it is called, as it seems to answer equally well upon peaty ground. In the common Northumberland system of growing turnips, it is well known that the ground, when sufficiently plowed, is thrown up into alternate ridge and furrow with the double breasted plow, that the dung is placed in the furrows, the ridges split, so what was furrow before, now becomes ridge, and the turnips drilled upon this new ridge standing, of course, over the hollow earth which has been filled into the furrow. But upon a very light sand, Mr Williams, thinking it desirable to keep the ground firm under the root, whether turnip or mangel wurtzel, proceeds in this way. The ground is plowed first very shallow—upon peat it may be merely scarified; the dung is then spread upon the land, the double-breasted plow is used, as in the common mode, to throw up ridges; but the process is now complete, and the turnips are drilled at once on these first-formed ridges, so that, while the dung is collected round them as in regular ridging, they have a solid bed to stand on in this bastard ridging, as it may be called; and I must say that a trial I have this year made of this method with swedes upon peat, has confirmed Mr Williams's experience upon sand. This operation, however, which I have mentioned in order to show the leading principle acted on here by farmers in the cultivation of peat—tightness of ground—applies to a later crop of swedes: at least in the first crop no dung could be required, the ashes being amply sufficient.

Rape or swedes being established as the first crop, after the breaking up of peaty land, in the system I am describing, the next crop is usually oats: they are drilled in upon a very shallow furrow, with plenty of seed, and well pressed with a press-roll, as well before they are come up as afterwards, in order to guard against the wire-worm, the enemy to be feared on such land. It is remarkable that by very late sowing, as late as the end of April or beginning of May, you may be almost certain to escape the wire-worm—it is supposed, because the oat grows more rapidly out of their reach; but on the other hand it will be harvested late; and there is this further disadvantage, that the grain, which is always light on such land, will become so much lighter, that you perhaps lose in weight as much as you gain in quantity. I may observe that the oats do not ripen together upon this ground: the farmers cut them while they are partially green, because they find that, if they wait until the whole crop has changed its color, the best grains, which are those that first ripen, shed in the mowing and carrying, whereas these are preserved by early cutting, while the unripe grains and green stalks improve the straw as fodder for cattle. This first crop of oats is generally beaten down by the weather, being weak and long in the straw, and, though not a bad crop, looks better than it really is.

On land which is not peat but peaty, some farmers grow barley: there is a large crop of straw, and it is therefore liable to be laid; the grain, too, is but thin. The advocates of barley, however, assert that a bad sample of barley is better than a bad one of oats, because thin barley may be ground or may be used for seed, whereas seed oats should be as plump as can be found. On the other hand, it has been stated to me by a gentleman residing in Lincolnshire, that "he considers barley the most objectionable grain which can be sown upon peat soil, and that its injurious effects are visible for five years."

The rape and the oats will generally have proved successful, and indeed by their luxuriance may lead one to suppose that more improvement has been made than is really the case. It is now that doubt and difficulty begin. The oats or barley are followed by rye grass, which has been sown among them, but if these have been laid, as they often are, large patches of the rye-grass will have been destroyed. Even if they have not been laid, the peaty soil will perhaps throw out many of the grass-plants by the roots in the next winter, and still more in the succeeding one, if, as is usual here, the rye-grass be left for two years. The motive for so leaving the ground two years in grass is, that it may regain solidity before it is again plowed: still this is but a poor rotation which gives only one crop of corn in four years. On the other hand, if the ground were left permanently in grass, there is reason to suppose that in a few years the fine grasses would wear out, the coarse herbage return, and the land be no better for the expenses incurred in drainage. Nay, one farmer thinks he had observed it become worse, because the aquatic grasses natural to peat no longer obtained the moisture which they require, and the better grasses do not grow well. In order to meet this evil, the gravel or rubble which has been taken out from the main drains, is spread over the ground in the winter before the oats are sown: and, however sterile and hungry be the material thus used as a manure, there is no doubt that it produces a strong effect, for the rye-grass is much thicker and sweeter where this has been done: this is called firming or weighting the land; it is good as far as it goes, but the staple of the soil is still very weak. When wheat is sown on ground that is at all peaty, it will almost certainly lose plant in large patches, even though the land has been dunged, and the young wheat has been trodden in by women, as is sometimes done in the spring. There is clearly some principle defective in the composition of the soil: that principle is cohesion, and can only be supplied by clay.

The operation of claying peat is one of the methods by which English farmers have for many years been silently changing the face of the country, which now constantly come to our knowledge, but for which they have not hitherto received the credit due to them: its effect is so wonderful that I ought not to withhold a further account of it which I have obtained from Mr Wingate himself, whose farm at Leake is mentioned by Mr Morton:

"Dear Sir—I will endeavor to describe to you what we have done in our east fen since its great improvement by drainage, confining myself to that land which I consider decayed vegetable matter on a clay or silty subsoil at various depths, and which had been under water generally for ages in the winter season, and getting partially dry in the summer. A great deal of wood in the first instance was taken out of it—nay, in fact, is still in many parts where the plow goes a little deep, chiefly oak, I believe, but in some instances maple, poplar, and aspens, all lying in one direction. At the time of the first enclosure, from what I hear, the land was brought into cultivation by paring and burning, sowing with cole (rape,) then afterwards oats and rye, which oats it grew of very bad quality, being very light, and I believe it nearly ruined the first class of occupiers. It had been occupied before I took it by a tenant, and had been all clayed over once at my expense. After getting it into my own hands, the first thing I did (it being very much out of condition) was to fallow it thoroughly, and sow it with cole, and I had some very fair crops. After that I clayed it again: we usually have our clay-dykes 11 yards from the centre of each, taking off the peat and putting on the clay, 3 feet wide by 4 feet deep—a very heavy dressing, being nearly 300 cubic yards per acre. After that it was sown with, 1st year, oats; 2d, wheat; 3d, cole with manure; 4th, oats; 5th, wheat; 6th, cole or turnips well manured, and then clayed over a third time the same as before; and most certainly I had very productive crops, that is, as much as 5 qrs. of wheat per acre, and from 8 to 9 qrs. of oats, all of very fair quality. I began again to clay the fourth time, but not with the same favorable results, and have only done some little over again, thinking the lands have got quite sufficient solidity; in fact, some of it is, I consider, almost over-clayed. I do not attribute my getting less produce of late years to the over-cropping of the land, but to the destructive ravages of the wire-worm. Still I do consider, on the whole, I have fared much better than my neighbors, who generally have some portion of their land in seeds either mown or summer-grassed.

Perhaps I ought to add, I have generally consumed 6 or 8 tons of oil-cake, with about 12 acres of meadow-land hay, to assist in converting my straw into manure. The size of that farm is about 100 acres. I ridged some peat land for turnips one season, with but indifferent success; and I always find the corn much better and much less infected with the wire-worm in the clay-dykes, where the land has been turned over perhaps from 3 to 4 feet in depth. We attempt very heavy rolling; tread the wheat land with men or women in the spring; but if we have cold, backward weather, all we can do appears of but little avail against the destructive insect.

I have mentioned your note to a neighbor and much respected friend of mine, one of the best cultivators of the soil I ever saw, and he falls in partly with your views of shallow plowing. I certainly do not. It is possible in the first instance, if you put on a small portion of clay, by plowing deep you may lose it; then I would say in reply to that, I would clay the land, and sow the crop without plowing at all, simply well harrowing or scarifying it, then breaking it up and well mixing it. On some peaty land of wretched quality where I live, I have doubled, nay trebled, the produce by drainage and very heavy claying.

I beg to remain, dear sir,
Yours, respectfully,
Wm. B. Wingate."

(To be continued.)

Too true.—Three years ago, says the Crescent City, the question with men was, "How shall I make a fortune?" Now the inquiry is, "How shall I support my wife and children?" How capricious is fortune.

From the Farmer's Monthly Visitor.

THE MANURE HEAP.

Mr Editor—I wish to call the attention of those farmers who read the Visitor, to the importance of enlarging their manure heaps. There cannot be too much said and written upon this subject. Most of our farmers seem to be satisfied with what they merely make from the hay consumed in their barns, and do not even in this way always return to the soil what they have taken from it, for many who make no more manure than what the consumption of the hay affords, sell off a portion of their hay, and thus rob their fields own pockets.

If I may be allowed to lecture farmers a little, I would say—

1. *Make your hogs work.*—Many farmers are now-a-days looking out for the best breed of hogs to *fat easy*; but such hogs are not always the best for the farm, especially if it is run down. Fat hogs are generally lazy. Whether their corpulency induces laziness, or *vice versa*, I am not able to say; but of this I am sure, they will not work well. If you wish to have help from your hogs in making manure, get raw-boned, long-snout fellows, that will plow a furrow six or eight inches deep. If you wish to have a fat one to kill, you might put one into the sty as a kind of overseer. By occasionally casting an eye at the laborers, and grunting and lounging, he would perform his office as well, probably, as many overseers of our public works, at two dollars per day.

But you must give your working porkers room enough, and stock to work over. If you have muck near at hand, bring it to the yard. If you cannot get at that, plow up sods by the road-side, in your pasture lanes, and by your walls in the fields. Children may not like it so well to have the raspberry bushes and blackberry vines plowed up, but the hogs will be glad to work them over, and you will save having your grass trodden down. When you get a good heap by the side of your hog-yard, throw in a little at a time, for if you put in a large quantity they will get discouraged. If their *plows* get dull, so that they do not turn over the furrow well, dig a few holes and scatter in some corn or oats. If the hogs get the scent of your deposit they will work over the whole mass.

Brakes and leaves may be thrown in to help loosen up the muck or sods. In this way you may do much towards enlarging the manure heaps. Every hog should make at least six cartloads of good manure, and he will do it if you give him a chance.

2. *Get Muck or Soil into your Barn-yard.*—I know of many farmers who are in the habit of drawing into their cow-yards several loads of muck, or soil in the spring, and frequently plowing it up with the manure which the cattle drop during the night. This is carried out in the fall on to the grass land for a top-dressing, being left in heaps till spring, or else thrown into heaps by the side of the yard or in the middle, so that it may not be in the way of the cattle. Late in the fall another laying is spread on the bottom of the yard, for the stock to run over during the winter. Throw down a load or two under each window where you throw out your dung, and it will become so well saturated with mire as to be good manure in the spring. If possible, let all be thrown together in the spring as soon as the frost is out; then let it ferment till it is time to draw it to your fields. It is a good thing to have the dung which the cattle make during the winter, under cover, as the rains waste the heap, and disengage a portion of the ammonia, which escapes into the air. Many are in the habit of drawing their summer manure in the fall on to the ground which they intend to plow the next spring. This is probably a convenience, but there is a loss in its strength, especially when it can be kept under cover by remaining in the yard.

3d. *Gather up the Addments.*—There is a great deal of valuable matter in leaves and brakes, which if gathered in season would be valuable as manure. Brakes, while they are green, might be mown and thrown into heaps, and then covered over with a little loam or mud, when they would rot very soon. Leaves can be gathered in the fall, and thrown into heaps in the same manner as brakes, or what is better, carried into a spare room into the barn or shed, and used as litter for the cattle.

Old woollen rags, horns, bones, hair, &c. can be thrown into a pile and covered over, which in process of time will rot and make the most valuable manure. The sweepings of woollen factories, carding mills and tailors' shops, where they can be obtained, are not to be despised. In Chaptal's Chemistry, I find the following, which is worthy of notice:

"A very good manure is formed from wool. According to the ingenious experiments of M. Hatchett, hair, feathers and wool are only particular combinations of gelatine, with a substance analogous to albumen; water can only dissolve them by means of fermentation, which takes place slowly and after a long time.

"One of the most surprising instances of fertile vegetation that I have ever seen, is that of a field in the neighborhood of Montpelier, belonging to a manufacturer of woollen blankets. The owner of this land causes it to be dressed every year with the sweepings of his work shops; and the harvests of corn and fodder which it produces are astonishing.

"It is well known that from the hairs of wool transpire a fluid which hardens upon their surface, but which possesses the property of being easily soluble in water. This substance has received the name of animal sweat; the water in which wool has been washed contains so much of it as to make it very valuable as a manure.

"I saw, thirty years since, a wool merchant in Montpelier, who had placed his wash-house for wool in the midst of a field, a great part of which he had transformed into a garden. In watering his vegetables he had used no other water than that of the washings; and the beauty of his productions was so great as to render his garden a place of general resort. The Genoese collect with care, in the south of France, all they can find of threads and rags of woollen fabrics, to place at the foot of their olive trees.

"According to the analysis of M. Vauquelin, this animal sweat is a soapy substance, consisting of a base of potash, with an excess of oily matter, and containing besides, some acetate of potash, a little of the carbonate and of the muriate of the same base, and a scented animal matter."

To what I have already said, I might add, have a heap of loam or sods under your sink-spout. The soap-suds and greasy dish-water which are so frequently running from the sink, should not be lost. The vessels from your chambers likewise should be emptied upon it, and also the blood, when you kill any of your creatures. If you do not wish to throw all together, have another pile a little removed from the house. Some ashes or lime thrown on occasionally, would remove all unpleasant scent. JETHRO.

EXCERPTS.

Without Agriculture and Manufactures flourish in a country, it is impossible to attain an advantageous commerce. The excellent maxim of Cato should never be lost sight of, that "a master of a family should be a *seller*, not a *buyer*." All the comforts of a family, all the wealth of a city, and all the grandeur and power of a State, depend on *selling much and buying little*, or selling more than is bought.—*Farmer's Monthly Visitor.*

Never EX-*press* what you should SUP-*press*, nor RE-*press* what you should EX-*press*. COM-*press* your ideas into as small a space as may be, and you will never need to *press* others to listen to you. Neither will you OP-*press* them with the length of your discourse—but you will IM-*press* them with the wisdom of your remarks. Thus you will never DE-*press* the spirits of your hearers.—*Ib.*

Home.—The only fountain in the wilderness of life where man drinks of water totally unmixed with bitterness, is that which gushes up in the calm and steady recess of domestic life. Pleasure may heat the heart with artificial excitement; ambition may delude it with golden dreams; war may eradicate its fine fibres and diminish its sensitiveness, but it is only domestic love that can render it truly happy.—*Ib.*

The neatest way to separate bees-wax from the comb is to tie it up in a linen or woollen cloth or bag with a pebble or two to keep it from floating: place it in a kettle of cold water, which hang over the fire; as the water heats, the wax melts and rises to the surface, while all the impurities remain in the bag.—*Far. Cab.*

Pennyroyal.—Farmers might confer great kindness on their animals, in preventing the grievous annoyance of flies, by simply washing the parts with the extract of pennyroyal. Flies will not alight a moment on the spot to which this has been applied. Indigo weed fastened about the harness, will likewise keep off flies.—*Selected.*

She who makes her husband and her children happy; who reclaims the one from vice, and trains up the other to virtue, is a much greater character than ladies described in romances, whose only occupation is to murder mankind with shafts from the quiver of their eyes.—*Goldsmith.*

The Marquis of Glanricarde lately stated in the British House of Lords, that although the population of the country had largely increased, the consumption of food had considerably diminished. What a horrid revelation does this single and simple fact give!

A Fireman's Toast.—The Ladies—The only *incendiaries* who kindle a *flame* which *water* will not extinguish.

Learning is an ornament in prosperity and a refuge in adversity.

From the New Genesee Farmer.

DANIELL'S NEW ARTIFICIAL MANURE.

At length we have notice of the mode in which this new mixture is formed. The ingredients are as follow. Any wood mechanically reduced to powder—in plain words, saw-dust; this is the basis, and it is to be thoroughly saturated with bituminous matters, of all, or any kind; to this is to be added small proportions of soda and quick lime, and a very small quantity of sulphur. The principles on which this compound is formed, appear at first rather obscure; but one thing is apparent—it is an attempt to make an artificial bituminous coal, and to keep this in a state of slow combustion with only the substitution of soda for the potash of the wood, and the addition of quick lime. The proportions are not told, nor how long the compost is to remain before used, nor what the bituminous matters are; the only additional information is, that in using, it should be buried two or three inches under the surface of the soil, to prevent the evaporation of the volatile and valuable parts. Mr Hall produced a sample of the manure—a coarse, black powder, having a strong smell, somewhat resembling coal tar. Samples of the wheat grown by Mr Daniell were also exhibited; and it was stated in reply to questions, that the crops produced were greater in quantity, better in quality and weight, and produced with one-third the ordinary quantity of seed. If this new manure will give us artificial coal, which will, *of itself*, enter into slow combustion, and furnish vegetables with its ammoniacal product, by degrees, as required, it must be of immense importance to agriculture.

The value of bituminous soot as a manure, has never been doubted; but, like many other manures, it has too often been applied in such large quantities or in such strong solutions, as have rendered it injurious instead of beneficial. Bituminous coal contains from 13 to 16 per cent. of nitrogen or azote, and from 4 to 12 per cent. of hydrogen. When coal is burnt, these two gases unite and form aminonia; when burnt in the open air, the ammonia goes partly into the atmosphere, and is partly condensed in the soot; but when burnt in retorts, for the purpose of affording gas for illumination, the ammonia is dissolved in the liquor used for purifying the gas, and is called the ammoniacal liquor of gas works. The manure will probably be about one-third the price of bone dust.

The following account of it was given to the Royal Agricultural Society, and is extracted from the Boston Courier.

"It had long been a subject of inquiry, what is the food of plants, how are they supplied, and what are the elements of their growth? There was every reason to believe that a reply could be now given of a more satisfactory nature than had ever been hitherto known; besides which, by the discovery of Mr Daniell, a most important corroboration had been obtained of what had been considered the elements of vegetable growth; those elements were carbon or charcoal, hydrogen or inflammable gas, oxygen or vital air, and nitrogen. All these elements existed in the atmosphere, in combination with other elements, in which state they were found to be the sources of vegetable development. It was known to persons accustomed to rural pursuits, that the heaps of vegetable substances collected for the purposes of manure, during the process of decomposition, became greatly reduced in bulk and weight. If they investigated the causes of this reduction, they would find that it was occasioned by the evaporation of the carbonic acid and ammonia, the principal sources of nutriment to plants. The discovery of Mr Daniell contained all the elements of vegetable growth. It did not supply new elements, but the same derived from other sources. It was known, that by combustion substances were rapidly decomposed, and its operation produced the elements of vegetable growth. There were on the earth numerous plants which were apparently useless, but it was a principle in nature that nothing should be lost, and they were capable of a reduction into their elements, and being made the means of vegetable growth in other forms. The discovery of Mr Daniell was suggested by the fact that, while burning vegetable substance, he observed that the ashes became blackened by the surrounding smoke, and when used in that state were very fertilizing. This led him to investigate the cause, and as the result of his investigation he had produced the new manure, the elements of which were carbon and ammonia. With it the principal properties would not fly off during decomposition, as that would take place in the earth. Among other advantages, it was light in weight, cheap, and capable of being produced in any quantity.

"This manure has been applied by the discoverer to his own crops, on three acres of poor land, in an elevated situation, on some of which he has grown wheat four successive years, with improving results each year; its good effects are therefore founded upon experience, personal observation, and the testimony of other observers competent to judge. From the nature of the manure, it is applicable, with some variations in its composition, to every kind of crop. It is not a stimulating manure, in the ordinary sense of the word—that is, it will not have a tendency to call into activity the existing resources in the soil—but its direct effect is to convey to the soil the direct nutriment of future growth. This effect is produced by the supply of ammonia to the soil in substance calculated to retain it for a time—to again absorb it from the atmosphere—as they give it out to plants during their growth. It will probably prevent also the ravages of insects.

"Its mode of application may be various, according to the circumstances of the crops. The application by drill is conducive to economy of the manure, and a direct application to the infant plant, as is the case with bone-dust. Care, however, must be taken that it is not applied too directly to the plant, or without some portion of mould around it. This is the only precaution needed to avoid danger in its use. There is one required to prevent waste, as it is of a volatile character; that is, to place it several inches in the earth as the earth will absorb and retain the volatile and valuable part. For grass lands, for similar reasons, it will be well to have it mixed with a considerable portion of ordinary unvalued mould. If the manure, as manufactured, be mixed with an equal bulk of mould, it will be perfectly safe for application; or if the mould of the field be stirred over it, when drilled, it will suffice. The quantity to be used will vary according to the crop, like any other manure. About twentyfour bushels per acre are recommended for wheat, and half as much more, or thirtysix bushels, might be beneficially applied for turnips or mangel wurtzel. The most beneficial quantities will easily be ascertained by the intelligent farmer."

From the Maine Farmer.

IS BARLEY A SUITABLE CROP TO FOLLOW POTATOES?

The experience of the agricultural world proves that a rotation of crops is not only the best mode of husbandry, but is in some instances necessary, in order to keep up the fertility of the soil. It has been also observed, that, whatever may be the true food of plants—whether mineral, animal, or vegetable matter, whether silicates, or geine or ammonia—some crops do better after certain kinds than after others. Hence some little experience, as well as observation, is necessary to ascertain what rotation is best suited to the soil, climate and situation of the field to be cultivated. The theory of De Candolle, that plants exude or deposit from their roots excrementitious matter that is not suitable for them, has never been disproved. If this matter is unsuitable for the crop that deposits it, may it not be so for some others? As a general rule, it has been thought that root crops should precede or follow the *culmiferous* or grain crops. But there are some exceptions. Indian corn does not do well after ruta baga; and we, the other day, witnessed a very striking instance of the effect of a potato crop on a crop of barley that succeeded it. Mr Ziphion Howard, of this town, a very careful and industrious farmer, last year planted a piece of land to corn, with a row of potatoes on the east side of it, and quite a number of rows of the same, on the west side. If we recollect right, the corn was manured broadcast, and the potatoes in the hill. The soil is all as near alike as it can be. This last spring he plowed up all the same piece at the same time, harrowed, and sowed upon it barley. The barley was all sown on the same day and was all of the same kind, but at the present time that which grows upon the corn ground is out of blossom, and the seed approaching to ripeness, while that which grows upon the potato ground is just beginning to head out. The difference can be perceived as far as the crop can be distinguished by the eye, and it is remarkable to see with what exactness this difference in the crop marks out the bounds of the corn and potatoes of last year. A row or two of the corn was not planted out last year, and the space was filled with potatoes, and this *break* or *jog* in the row can be distinguished by the difference in the barley, as distinctly as it could last year, when the corn and potatoes were growing. We went on to the east side of the piece, and there found the same difference. The barley growing where the single row of potatoes was, being as far behind the other as it was on the west side. The question arises, is this always the case when barley follows potatoes? Mr Howard thinks it is. He remarked that he had always heretofore sowed his barley on ground previously cultivated to potatoes, that he never had very good crops, and that he came to the conclusion that his soil was not suitable for this kind of grain. But the accidental experiment of this year convinces him that the error was not so much in the natural properties of his soil as in following barley with potatoes, because the barley upon the corn ground, is as handsome a crop as one generally sees.

The Cincinnati Chronicle estimates the wheat crop to promise 120 millions of bushels, or 30 millions more than in 1839, and that flour may be even *less* than $3 per barrel.

TO PRESERVE SHEEP FROM THE GAD-FLY.

In vol vii. of the N. E. Farmer, we find the following remarks upon this subject, by Mr Fessenden:

There exists in some parts of the country, a species of fly, which naturalists call *Œstrus ovis*, of the same genus with that which deposits eggs in the hair of horses, and causes botts. This fly attacks sheep from about the middle of August to the middle of September, deposits its eggs in the nostrils of the animals, and causes those worms, which so frequently destroy them. The Mechanic's Gazette recommends as a preventive, covering the nostrils of sheep with a list of gauzy substance, through which the animal can breathe, and keeping it in its place by some adhesive substance. We doubt, however, the practicability of "keeping it in its place." Another preventive which sheep-owners tell us is effectual, is to keep the noses of the sheep constantly smirched with tar, from about the middle of August to the latter end of September. If the sheep swallow some of the tar, so much the better, as it prevents or cures the rot, and confirms their health.

If the fly has performed its mischievous function and the seeds of the disorder are already sown, you may make use of the following: Take half a pound of good Scotch snuff, pour two quarts of boiling water on it, stir it and let it stand till cold; inject about a table spoonful of this liquid and sediment up each nostril of the sheep with a syringe. This must be repeated three or four times at proper intervals, from the middle of October to the first of January; the grubs are then small and are easier destroyed than afterwards, and have not injured the sheep as they will if deferred until later. Half an ounce of assafœtida, pounded in a little water, and added to the snuff, will make it more effectual. The owner of the sheep need not be alarmed when the operation is performed, to see the sheep very drunk and apparently in the agonies of death, as they will in a few minutes recover. I never knew any bad effects to follow. Dry snuff may be blown up the nose with a quill, and have a good effect; but it is a tedious dirty job. I have tried vinegar and blue dye with but little or no success.

Instead of Scotch snuff, a decoction of tobacco will answer the purpose. A gentleman who owns a large flock of sheep, informs us that he had used it with perfect success. Spirits of turpentine are injected into the nostrils of sheep, as a remedy for worms; but that substance appears to possess one material disadvantage, which should preclude its use for that purpose, namely: when thrown into the nostrils it kills the *sheep* as well as the worms.

SOWING WINTER RYE.

From the middle of August to the middle of September is said to be the best time for sowing winter rye. By sowing early, you provide green food for sheep late in the fall and early in the spring, and by early sowing and feeding in the fall, the roots of the grain take such firm and extensive hold of the soil, that they are less liable to be thrown out of the ground by frost, or winter-killed. When sowed so early, three pecks of seed will be sufficient.—*Ibid.*

Sweet flag root cut in thin slices and scattered among woollens of any kind, will effectually repel the attacks of moths.

From the Farmer's Cabinet.

SHOEING THE HORSE.

Mr Editor—The remark of your correspondent at page 318 of your number for May, "That many of us transpose the order of our labors," reminds me of a mode adopted in the shoeing of the horse, which I once witnessed, and which is I believe of importance sufficient to deseree notice in the pages of your valuable and very interesting work. It occurred at the town of Croydon, near London, which is well known as the centre of the stag-hunt, so well attended by the whole country around, and especially by the high-bred bloods of London; and where may be seen a field of the best horses in the whole world—many of them worth five or seven thousand dollars.

As I once passed through this town, one of my horse's shoes became loose, and I went to the shop of a smith named Lovelace, to get it fastened: the shoe was nearly new, and had become loose in consequence of the nails having drawn out of the hoof, although they had been clinched in the manner universally practiced. The smith remarked that all the other shoes were loose, and would soon drop off, when I requested him to take them off and replace them; and then did I perceive the different mode which he adopted for fixing them, which I will here detail.

As fast as he drove the nails, he merely bent the points down to the hoof, without, as is customary, twisting them off with the pincers: these he then *drove home*, clinching them against a heavy pair of pincers, which were not made very sharp; and after this had been very carefully done, he twisted off each nail as close as possible to the hoof; the pincers being dull, the nail would hold, so as to get a perfect *twist round* before it separated. These twists were then beaten close into the hoof and filed smooth, but not deep, or with the view to rasp off the twist of the nail. "Oh ho!" said I, "I have learnt a lesson in horse-shoeing." "Yes," said he, "and a valuable one; if I were ever to lose a single shoe in a long day's hunt, I should have to shut up my shop; my business is to shoe the horses belonging to the hunt, and the loss of a shoe would be the probable ruin of a horse worth, perhaps a thousand pounds; but I never am fearful of such an accident." "Simply because you drive home and clinch the nails before you twist them off," said I. "Yes," replied he, "by which I secure a *rivet* as well as a *clinch*."

The thing was as clear as the light of day, and I have several times endeavored to make our shoeing-smiths understand it, but they cannot *see* the advantage it would be to *themselves*, and guess, therefore, *it would never do in these parts*; but if my brother farmers cannot see how it works with half an eye, and have not the resolution to get it put into practice, they ought to see the shoes drop from the feet of their horses daily, as I was once accustomed to do. Now, let any one take up an old horse-shoe at any of the smiths' shops on the road, and examine the clinch of the nails which have drawn out of the hoof, and he will soon perceive how the thing operates. In short, if the nails are driven home before twisting off, and the *rivet* formed by the *twist* be not afterwards removed by the rasp, I should be glad to be told how the shoe is to come off at all, unless by first cutting out the twist. I am, sir, a constant reader of the Cabinet, and one who has benefited many dollars by the various hints which have been given in its pages.

J. S.

CHEAP MANURE FOR THE GRAPE VINE.

"Nothing more," says a vine-dresser upon the banks of the Rhine, "is necessary for the manure of a vineyard, than the branches of the vines themselves; my vineyard has been manured in this way for eight years, and yet more beautiful and richly laden vines cannot be pointed out. I formerly followed the method usually practiced in this district, and was obliged in consequence to purchase manure to a large amount. This is now entirely saved, and my land is in excellent condition; and when I see the fatiguing labor used in the manuring of vineyards—horses and men toiling up the mountains with unnecessary materials, I am inclined to say to all, Come to my vineyard and see how a bountiful Creator has provided that vines should manure themselves like the trees in the forest! and even better than they, for the foliage falls from the trees in a forest only when the leaves are withered, and then they lie for years before they decay; but the branches are pruned from the vines about the end of July, while still fresh and moist, and if they are then cut into small pieces and mixed with the earth, they undergo putrefaction so completely that at the end of four weeks not the smallest trace can be found."

Another poor man writes—"For the last ten years I had been unable to place dung on my vineyard, because I am poor and could buy none; but I was very unwilling to allow my vines to go to decay, as they are my only source of support in my old age; and I often walked very axiously amongst them without knowing what I should do. At last my necessities became greater, which made me more attentive, so I remarked that the grass was longer on those spots where the branches of the vine fell, than on those on which there were none. So I thought upon the matter and then said to myself, if those branches can make the grass grow large and strong and green, they ought also to be able to make my plants grow better and become strong and green. I dug, therefore, my vineyard as deep as I would have done to put dung into it, and cut the branches into small pieces, placing them in the holes and covering them with earth. In a year I had the great satisfaction to see my barren vineyard become quite beautiful; and this plan I continue every year, and my vines grow splendidly and remain the whole summer green, even in the greatest heat. All my neighbors wonder very much how my vineyard has become so rich, and yet they all know that I have put no dung upon it for ten years."

A most ruinous plan of management of the vine prevails in some places: it is to pinch off the top of the bearing shoot when it has advanced about a foot beyond the last fruit-joint, with the view of throwing more of the juices of the tree into the fruit; and this it no doubt does; but this juice is not properly concocted or *cooked*, as it is by passing on to the end of the shoot and returning to the fruit, there to be deposited in a state of purity, fitted by the hand of nature for the express purpose, and in a way which she only knows how. Hence arise plethory and mildew—the vessels overcharged with the crude sap are bursted, and then putricity and life are engendered, to the destruction of the crop. Of a piece with this highly improper treatment, is the removal of the tendrils, and, at a later period of the season, the leaves which shade the fruit—all wrong, depend upon it: we cannot *improve* nature—all we can do is to *assist* her, as some one very properly has it.—*Farmers' Cabinet.*

NEW ENGLAND FARMER,
AND HORTICULTURAL REGISTER.

BOSTON, WEDNESDAY, AUGUST 3, 1842.

A TRIAL OF CRUSHED BONE AS A MANURE FOR WINTER RYE.

In the month of August, last year, we broke up between two and three acres of plain pasture land; the soil rather light, and the surface quite mossy. After it was plowed, the roller was passed over the whole. Sept. 8, we marked out a portion of it into squares, three rods by three, and on to 16 of these squares, we put 8 bushels of bone—a half bushel on each square. This bone was applied dry and unmixed, just as it came from the cask. The rate was was a little less than 9 bushels per acre. Another and contiguous portion of the land had applied to it at the same time four bushels of bone at the rate of 16 bushels per acre. This is all the application that was made to any part of the lot. The ground not covered by this bone was left without any manure.

On the 8th of Sept. the rye was sowed, 5 pecks of seed per acre, and this with the bone were harrowed in together. The harrow passed first lengthwise the furrow, and then crosswise, and after this the ground was again rolled.

The weather immediately after this was warm and the ground was moist. In one week the grain was well up, and in three weeks, that where the bone was applied, was very perceptibly in advance of the other. It kept in advance through the autumn, became more firmly rooted, and much less of it was killed out by the winter. Late in March, the field was again rolled. In April, a considerable portion of the piece was harrowed; the teeth of the harrow used being so set that they run six inches apart.

Also in April, we spread bone at the rate of 9 bushels per acre upon a portion of the rye where none had been applied the preceding autumn. This bone was left upon the surface, and was neither rolled nor harrowed in.

During the spring and early part of the summer, the straw looked nearly as well where we applied 9 bushels per acre as where the rate was 16; and this that was boned had apparently four times as much bulk of straw upon it in June as the other.

At one time this rye wore a strange appearance: nearly every straw was as white as it is now, in places an inch, an inch and a half, or two inches long, and extending entirely around the straw. On some straws these white rings were near the head, on others as low down as the middle. We never saw or heard of any thing of the kind before; we supposed that the crop was ruined, and commenced cutting up and feeding out to our stock. In two or three days, however, we found that the sap continued to flow, and we left off cutting. The affection was seen as well on the parts not boned as on those that were.

On the 16th of July, the rye was fit for the cradle, and we then cut portions of it to be bound and threshed seperately, for the purpose of ascertaining the effect of the different applications and different treatment.

To do this fairly as possible, we took in the centre of the field, the half of one of the lands made by plowing; and in measuring, went from the centre of the hollow or dead furrow, to the centre of the ridge or back furrow. Our applications had been so made that each of them crossed this strip at right angles. We cut July 16; threshed and measured July 28 and 29. The lots were as follows—

No. 1. Containing 10 1 7 square rods. Had bone, 9 bush. per acre, applied in the spring, and was not harrowed. Gave 18 qts. of rye, or 9 bush. per acre, *by measure*. The weight was 33 1-2 lbs.

No. 2. Containing 10 1-3 square rods. Was harrowed in April, but had no manure at any time. Gave 15 qts., or 7 bush. 8 qts. per acre *by measure*. Weight 29 1-2 lbs.

No. 3. Containing 13 2-5 rods. Had bone in Sept.; 16 bush. per acre; was harrowed in April; gave 52 qts. or 19 bush. 12 qts. per acre, *by measure*. Weight 98 lbs.

No. 4. Containing 13 2-5 rods. Had bone in Sept., 9 bush. per acre, and was harrowed in April. Gave 39 qts., or 14 bush. 17 qts. per acre, *by measure*. Weight 73 1-2 lbs.

No. 5. Containing 8 3-4 rods. Boned in Sept., 9 bush. per acre. *Not* harrowed in April. Gave 27 1-2 qts., or 15 bush. 23 qts. per acre, *by measure*. Weight 51 1-2 lbs.

These several lots give an average weight of the grain per bushel, of 60 2-5 lbs. nearly.

The results arrived at by this trial are—

1st. That harrowing in the spring reduced the crop from 15 bushels and 23 qts, to 14 bushels and 17 qts.; i. e. caused a loss of 1 bush. and 6 qts. per acre.

2d. 9 bushels of bone gave an increase of 7 bush. and 9 qts. of rye per acre.

3d. 16 bushels of bone gave an increase of 12 bush. and 4 qts per acre.

4th. The application of bone (9 bush.) in the spring seems to have given an increase of 1 bush. and 24 qts. per acre; but this ground was not harrowed in the spring, and it may be but fair to ascribe one half the gain to this cause.

The above trial was as fair as is often made. The soil of lots 1 and 2 was a little lower and a little stronger than that of the others. This caused it to suffer more in the winter from the frosts, but gave it an advantage in the summer.

Should results generally be such as we have here obtained, Mr Ward's bone should find a ready sale; for the cost to us at the mill is 35 cents; truckage, 20 miles, 6 cts. per bushel, and cost of sowing 1 cent—whole cost, 42 cts. per bushel. Now each bushel of bone where we applied 9 bushels per acre gave an increase of grain of 25 8-9 qts., and where we used 16 bushels, each bushel gave as increase 24 1-4 qts. The increase of straw amply pays for the increased expense of harvesting and threshing the larger crop, so that is proper to reckon the grain at the market price in making up the account. If 3 pecks and more of rye can be obtained at 42 cents and the bone be left in the ground to benefit the future crops, and we know it will work for four or five years, then the farmer does well by such an operation. We honestly think that those who intend to sow winter rye this fall upon light lands, will find it a good operation to apply to them from 12 to 20 bushels of bone per acre. Our figures lead to this opinion.

IMPROVEMENT OF PEATY GROUNDS.

We copy today a portion of an article upon this subject upon this subject from the Journal of the Royal Agricultural Society of England. The article is from the pen of Philip Pusey, M. P., President of that Society. We do not furnish it to be taken in its details by the farmers of this country as their guide. Labor being cheaper in England than with us, and land being worth more there than here, they are remunerated for outlays upon their soil which would generally be improvident here. Still, the soundest principles of husbandry there, are worth knowing here—and we ask attention to two or three points in that communication: for instance, the effects of burning the surface; of ditching around by the shore and there digging through into the hard pan; also the benefits of clay as a top dressing. The second of these points may be attended to here, for generally there is no other way in which one can put upon peaty land a valuable top-dressing so cheaply, as by digging into the pan along the margin of his wet meadow, and throwing the gravel, sand, clay or whatever he finds, directly out upon the surface of his peaty grounds. Either of these substances is good in such a place. Clay, where it can conveniently be had, is worth trying. We mentioned last year, that Mr Peter Dodge, of Wenham, covered his wet meadows years ago with clay, and that we know not of lands any where that yield a larger burthen of grass than these, without greater expense in keeping up their fertility.

The article we give today is worth studying by those who intend to work upon their lowlands this autumn, and we trust there are many such—especially is it worth their notice so far as it teaches them to dig up from beneath the peat a dressing for the surface.

When you go to these lands, it is generally well to commence by opening a good ditch through the centre: this, however, in some narrow strips may not be necessary. Next open good ditches at the sides, sinking them into the pan: thus you cut off the waters which are constantly working out from the high lands, and oozing up through the peat. Having obtained control of the water, the surface may be operated upon variously, according to its texture and situation. If there are hassocks or bogs upon it, they should be cut off and removed or burned on the land. After this, if the texture allows you to plow, it is well to turn over the sod, but it is not advisable to plow deep. After the ground has been plowed, a dressing of thirty or forty loads of gravel, loam, soil, or clay, spread upon the surface and harrowed in with grass seed, or applied after the grass seed has been worked in, and left without harrowing, will probably give you a fine crop of good hay for several years. Where you cannot plow, a much thicker coating upon the surface is desirable.

MASS. HORTICULTURAL SOCIETY.

Saturday, July 30, 1842.

EXHIBITION OF FLOWERS.

From the President—a few Dahlias, viz: Rival Revenge, Constantia—[the names of the others are too illegible in the MS. to be deciphered.]

From Hovey & Co.—Bengal, Tea, Noisette and Bourbon Roses.

From S. R. Johnson—China Roses and Carnations.

From Dr. J. C. Howard—Dahlias.

From J. F. Trull—Dahlias, Verbenas, &c.

From A. Bowditch—China Rose.

From S. Dearborn—a large pink in a pot.

Carnations from S. Walker.

Bouquets from Dr. J. C. Howard, Hovey & Co, J. Hovey, W. E. Carter, W. Meller, J. A. Kenrick, S. Walker, and J. L. L. F. Warren.

Per order, C. M. HOVEY, *Ch'mn.*

EXHIBITION OF VEGETABLES.

From John Hill, No. 103 Faneuil Hall Market, extra large White Onions.

From A. Bowditch—fine large Chenango Potatoes.

From John C. Howard—large White Potatoes.

From J. L. L. F. Warren—Tomatoes.

For the Committee,

A. D. WILLIAMS.

HON. EDWARD EVERETT.

Our Minister to England has recently made a very happy speech at a dinner of the Royal Agricultural Society, which we shall copy next week.

The Season.—Crops thus far abundant. The latter part of last week was dry and hot—the corn began to roll in some spots—but on Sunday we had a fine shower.

☞Fruit report received too late for insertion. The reports should be sent in during Monday morning.

THERMOMETRICAL

Reported for the New England Farmer.

Range of the Thermometer at the Garden of the proprietors of the New England Farmer, Brighton, Mass. in a shaded Northerly exposure, for the week ending July 31.

July, 1842.		5, A.M.	12, M.	7, P.M.	Wind.
Monday,	25	56	85	66	W.
Tuesday,	26	62	82	79	W.
Wednesday,	27	63	90	77	W.
Thursday,	28	60	80	72	S. W.
Friday,	29	62	85	73	S. W.
Saturday,	30	70	92	75	W.
Sunday,	31	62	74	60	S. E.

BRIGHTON MARKET.—Monday, August 1, 1842.

Reported for the New England Farmer.

At Market 260 Beef Cattle, 15 Cows and Calves, 2800 Sheep and 90 Swine.

Prices.—*Beef Cattle.* We quote to correspond with last week. We quote a few extra $5 38 a 5 50. First quality, $5 00 a 5 25. Second quality, $4 50 a 4 75. Third quality $3 75 a 4 25.

Cows and Calves.—Sales 22, 25, 27 and $31.

Sheep.—Dull, and prices reduced. Lots 1 25, 1 42, 1 50, 1 75, 1 92, 2 00, and $2 37.

Swine.—The large Kentucky hogs were sold since last Monday for about 3 1-2. Sales to day old hogs 3 1-2 a 3 3-4. Small pigs 2-3. Barrows at 4 1-2 At retail from 4 1-2 to 5 1-2.

WHOLESALE PRICES CURRENT.

Corrected with great care, weekly.

SEEDS. Herds Grass, $2 50 to 3 00 per bushel. Red Top, 40 to 50 cents. Clover—Northern, 10 to 12c.—Southern, 8 a 10 c. Flax Seed, $1 50 per bushel. Lucerne, 25 c. per lb. Canary Seed, $5 00 per bushel.

GRAIN. Corn. The principal sales of the week have been by auction, consisting of the late arrivals from New Orleans, and comprising about 30 a 40,000 bushels.

Corn—Northern, old, bushel 61 to 62—Southern, round yellow, old, 60 a 61—Southern flat yellow, new, 56 a 57—do. do. white do. 54 a 55--Barley — a — —Rye, Northern, 70 a 75 —do. Southern, 65 a 67 —Oats, Southern, 30 a 33—Northern do. 35 to 00—Beans, per bushel 75 a 1 25.—Shorts, per double bush. 22 a 25—Bran, 20 a 21.

FLOUR. There has been rather more activity in the market this week for exportation, and the steady operations in the article during the month past, has prevented the accumulation of large supplies.

Baltimore, Howard Street, 4 mos. cr. $6 25 a 0 00 —do. wharf, $6 12 a 0 00 do. free of garlic, $6 25 a — —Philadelphia do. 4 mos. $5 87 a 6 00 —Fredericksburg, lowl'd 4 mos. $6 00 a 0 00 —Alexandria, wharf mountain, —6 00 a — —Georgetown, $6 25 a 6 62—Richmond Canal, $6 12 a 6 25 —do. City, $6 75 a 7 00—Petersburgh, South side $0 00 a 0 00 —do. Country $0 00 a 0 00—Genesee, common, cash, $6 12 a 0 00— do fancy brands $6 18 a 6 25 — Ohio via Canal, $6 00 a 0 00—do do New Orleans, cash $5 75 a 5 87. Rye, $4 00 a 4 25—Indian Meal in bbls. $2 75 a 3 12.

PROVISIONS. For Beef and Pork there is no great change; demand steady, and last quotations mostly continued.

Beef—Mess 4 mo. new bbl. $9 00 a 9 25—Navy—$7 50 a 8 00.—No. 1, 7 00 a 0 00—do Prime $4 50 a 5 00—Pork—Extra clear 4 mo. bbl. $11 00 a 11 50—do Clear $10 00 a 10 50 do. Mess, 7 50 a 8 00—do Prime $5 00 a 6 00—do Mess from other States,— a — —do Prime do do $5 00 a 5 50 do. Cargo do. 0 a 0 00— —Clear do do $10 00 a 10 50— Butter, shipping, 6 a 10 —do store, uninspected, 10 a 12—do dairy, 17 a 20,—Lard, No. 1, Boston ins. 6 a 7 — do South and Western, 6 1-2 a 7 Hams, Boston, 6 a 7—do Southern and Western, 4 a 6—Cheese, Ship'g and 4 meal, 5 a 6—do new milk, 6 a 7.

WOOL. Duty. The value whereof at the place of exportation shall not exceed 8 cts. per pound, free. All whereof the value exceeds 8 cts. per pound, 32 per ct. ad. val. and 4 cts. per pound.

The market for this article still remains in a very unsettled state. No sales of importance have been made during the week.

Prime or Saxony Fleeces, washed, lb. 37 a 40 c.--American full blood, do 35 a 37—Do. 3-4 do 32 a 35—Do. 1-2 do 30 a 32--1-4 and common do 25 a 28 — Smyrna Sheep, washed, 20 a 25— Do. unwashed, 10 a 13—Bengasi do 8 a 10--Saxony, clean,—Buenos Ayres unpicked, 7 a 10—do. do. picked, 12 a 16—Superfine Northern pulled lamb 33 a 35—No. 1 do. do. do. 28 a 30—No. 2 do do do 20 a 22—No. 3 do do do 12 a 15.

HOPS. Duty 20 per cent.

The season, thus far, has been very favorable for the growing crop, and a large yield is expected.

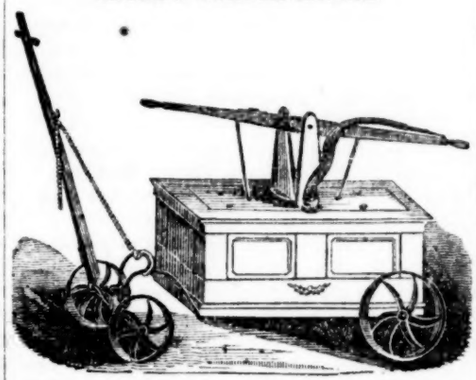
1st sort, Mass. 1841 per lb 10 a 11.—2d do do do 8 a 9.

HAY, per ton, $16 to 18—Eastern Screwed $14 to 16

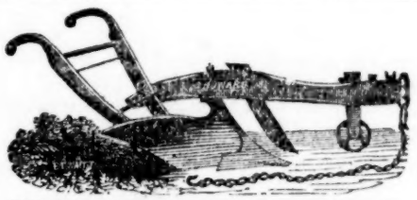
CHEESE--Shipping and 4 meal, 6 to 8c.—New 9 to 11.

EGGS, 12 a 16.

SAYLE'S GARDEN ENGINE.



This is a splendid article. It will throw a constant stream of water to the distance of 50 or 60 feet, with great force, and in case of fire would be a good substitute for a fire engine. The most perfect article for the purpose ever introduced. For sale by J. BRECK & CO., No. 51 and 52 North Market street.



HOWARD'S IMPROVED EASY DRAUGHT PLOUGH.

Great improvements have been made the past year in the form and workmanship of these Ploughs; the mould board has been so formed as to *lay the furrow completely over, turning in every particle of grass or stubble, and leaving the ground in the best possible manner.* The length of the mould board has been very much increased, so that the Plough works with the greatest ease, both with respect to the holding and the team. The Committee at the late trial of Ploughs at Worcester, say,

"Should our opinion be asked as to which of the Ploughs we should prefer for use on a farm, we might perhaps say to the inquirer, if your land is mostly light and easy to work, try Prouty & Mears, but if your *land is heavy, hard or rocky,* BEGIN WITH Mr. Howard's."

At the above mentioned trial the Howard Plough *did more work, with the same power of team, than any other plough exhibited.* No other turned more than twenty-seven and one half inches, to the 112 lbs. draught, while the *Howard Plough turned twenty-nine and one half inches, to the same power of team!* All acknowledge that Howard's Ploughs are much the strongest and most substantially made.

There has been quite an improvement made on the shoe, or land side of this Plough, which can be renewed without having to furnish a new landside: this shoe likewise secures the mould board and landside together, and strengthens the Plough very much.

The price of the Ploughs is from $6 to $15. A Plough, sufficient for breaking up with four cattle, will cost about $10 50, and with cutter $1, with wheel and cutter, $2 50 extra.

The above Ploughs are for sale, wholesale and retail, at the New England Agricultural Warehouse and Seed Store, Nos. 51 & 52 North Market Street, by

JOSEPH BRECK & CO.

April 20

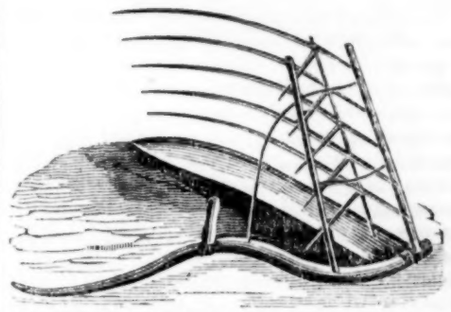
TYE UP CHAINS.

Just received by 500 Chains for tyeing up Cattle.

These chains, introduced by E. H. Derby, Esq. of Salem, and Col. Jacques, for the purpose of securing cattle to the stall, are found to be the safest and most convenient mode of fastening cows and oxen to the stanchion.

For sale by JOSEPH BRECK & CO., No. 52 North Market st.

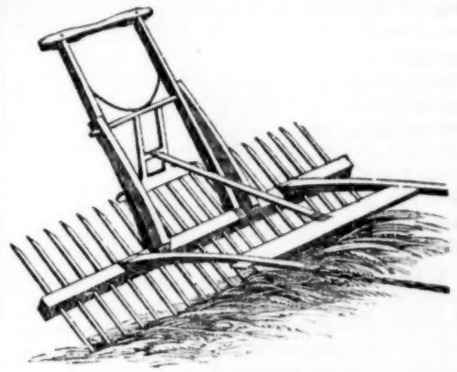
GRAIN CRADLES.



The difference in gathering a crop is so much in favor of cradling, that we must suppose that it will be the only mode adopted hereafter, and the grain cradle will become of as much use as an implement of husbandry, as the plow now is.

There has been a very great improvement in the manufacturing of this article, they are now made on the most improved plan; the scythe is well secured and finished in a superior manner and made of the best cast steel.

For sale by JOSEPH BRECK, & CO. No. 51 & 52, North Market st., Boston. July 13



REVOLVING HORSE RAKE.

This is one of the most useful and labor saving machines now in use. One man and a horse with a boy to lead, will rake on an average from 25 to 30 acres per day, with ease and do the work well There is a great advantage in this rake over all others, as the person using it does not have to stop the horse to unload the rake. For sale by J. BRECK & CO., No. 52 North Market st. May 22.

GRINDSTONES, ON FRICTION ROLLERS.

Grindstones of different sizes, hung on friction rollers and moved with a foot treader, is found to be a great improvement on the old mode of hanging grindstones. Stones hung in this manner are becoming daily more in use, and wherever used, give universal satisfaction. The rollers can be attached to stones hung in the common way. For sale by J. BRECK & Co., No. 51 North Market street.

LACTOMETERS—a simple instrument for testing the quality of milk. For sale by J. BRECK & CO.

MISCELLANEOUS.

Quarrels.—One of the most easy, the most common, most perfectly foolish things in the world, is to quarrel; no matter with whom—man, woman, or child—or upon what pretence, provocation, or occasion whatever. There is no kind of necessity in it, no manner of use in it, and no special degree of benefit to be gained by it; and yet, strange as the fact may be, theologians quarrel, and politicians, lawyers, doctors, and princes quarrel; the church quarrels, and the State quarrels; nations and tribes and corporations, men, women, and children, dogs and cats, birds and beasts quarrel about all manner of things, and on all manner of occasions. If there is any thing in the world that will make a man bad, it is unquestionably a quarrel. No man ever failed to think less of himself after than he did before one; it degraded him in his own eyes, and in the eyes of others; and what is worse, blunts his sensibility to disgrace, on the one hand, and increases the power of passionate irritability on the other. The truth is, the more quietly and peaceably we all get along, the better—the better for ourselves, the better for our neighbors. In nine cases out of ten, the wisest course is, if a man cheats you, quit dealing with him; if he is abusive, quit his company; if he slanders you, take care to live so that nobody will believe him. No matter who he is, or how he treats you; the wisest revenge you can resort to is, generally, to let him alone; for there is nothing better than this cool, calm, quiet way of getting along with the wrongs we meet with.—*Selected.*

A Good Illustration.—At a temperance meeting in Western New York, some one alluded to the plea, so often urged by the Society of Friends, that it is not well to aid in the reformatory movements of the day, because it leads to "mixing with the world." The speaker was followed by Henry Colman, of agricultural celebrity. In the midst of his remarks, he stopped suddenly, pointed out of the window, and looking at a Quaker friend opposite to him, exclaimed, in a tone of alarm, "Dr. Robinson! is that your house that's on fire?" Instantly the whole audience were on their feet. "Stop! stop!" shouted he: "Nobody must go but Quakers! Don't mix with the world! Nobody must go but Quakers!" The fire was, of course, a hoax; but we trust a serious use will be made of its witty application.—*N. Y. Standard.*

The Forget-me-not—Origin of its Name.—Mills, in his work on Chivalry, mentions that the beautiful flower called Forget-me-not, was known in England as early as the time of Edward IV., and in a note, he gives the following pretty incident, in explanation of the name:—

"Two lovers were loitering along the margin of a lake, on a fine summer evening, when the maiden discovered some flowers of the Myosotis growing on the water, close to the bank of an island, and at some distance from the shore. She expressed a desire to possess them, when her knight, in the true spirit of chivalry, plunged into the water, and swimming to the spot, cropped the wished-for plant; but his strength was unable to fulfil the object of his daring; and feeling that he could not regain the shore, although very near it, he threw the flowers upon the bank, and casting a last affectionate look upon his lady-love, he said, "Forget me not," and was buried in the water."

No man can ever borrrow himself out of debt. If you wish for relief, you must work for it, economise for it. You must make more and spend less than you did while you were running in debt. You must wear homespun instead of broadcloth, drink water instead of champagne, and rise at four instead of seven. Industry, frugality, economy—these are the handmaids of wealth, and the sure sources of relief. A dollar earned is worth ten borrowed, and a dollar saved is better than forty times its amount in worthless gewgaws. Try our scheme—it is much better than to depend upon bank favors, and a thousand times more honorable than a resort to bankrupt laws.—*Selected.*

How beautiful does the fine spirit of benevolence displayed in the following extract from one of Pope's letters, contrast with intense selfishness which characterizes the present age:

"I am rich enough, and can afford to give away £100 a year. I would not crawl upon the earth with doing a little good. I will enjoy the pleasure of what I give, by giving it alive, and seeing another enjoy it. When I die, I should be ashamed to leave enough for a monument, if there were a needy friend above ground."

At a meeting of the Temperance Societies of this city, says the New York Tattler, a young man—a noted "buster"—being requested to go forward and sign the pledge, remarked, "Oh, I can't, for I drink like a fish." "But fish," said the gentleman who urged him to sign, "never get drunk." To which he replied, "Well, I can't say that I've seen them drunk, but I am certain I have seen them *pretty well corned.*"

Brought up with Them.—"Good morning, Mr Smith, and what do you bring to market today, eh?"

"The finest, freshest pork, sir, the handsomest, I reckon, that you ever laid your eyes on. Let me sell you part of that little grunter yonder—you shall have it cheap," said Smith.

"It is *good*, you say—eh?"

Yes sir, if I'm any judge of hogs, and I reckon I *orter* be—*I was brought up with them!*"—*Selected.*

In the State of Vermont the people are so dull that it takes ten men to make a joke.—*English paper.*

The English editor has drawn his inference from the fact that old Col. Ethan Allen with nine Vermonters, took Ticonderoga with a large British garrison, in old revolutionary times. If it took ten men to play that joke, it must be acknowledged that it was a good one.—*N. O. Picayune.*

The Difference.—The Declaration of Independence says, "all men are born free and *equal.*" The Halifax Herald gives a practical illustration that such is not the fact. It says that a lady in Halifax recently gave birth to twins, two boys, one weighing 12 pounds, and the other 18.

"Rachel, my daughter, why don't you learn as fast as your sister Hannah?"

"Why don't every stalk of clover bear four leaves, mother?"

"Go bring in a basket of chips, child."

"We are doing a *smashing* business," as the hail-stones said to the gardener.

DRAFT AND TRACE CHAINS.

400 pair Trace Chains, suitable for Ploughing.
200 " Truck and leading Chains.
200 " Draft Chains. For sale by J. BRECK & CO., No. 52 North Market st.

POUDRETTE.

For sale 200 Barrels Poudrette, at $2 per barrel, by J. BRECK & CO, 51 and 52 North Market st., Boston.
May 18.

MUCK MANUAL.

For sale by JOSEPH BRECK & CO., The Muck Manual for Farmers. By Dr S. L. DANA; price $1.
Boston, April 13.

GREEN'S PATENT STRAW CUTTER.

JOSEPH BRECK & CO. at the New England Agricultural Warehouse and Seed Store Nos. 51 and 52 North Market Street, have for sale, Green's Patent Straw, Hay and Stalk Cutter, operating on a mechanical principle not before applied to any implement for this purpose. The most prominent effects of this application, and some of the consequent peculiarities of the machine are:

1. So great a reduction of the quantum of power requisite to use it, that the strength of a half grown boy is sufficient to work it efficiently.

2. With even this moderate power, it easily cuts two bushels a minute, which is full twice as fast as has been claimed by any other machine even when worked by horse or steam power.

3. The knives, owing to the peculiar manner in which they cut, require sharpening less often than those of any other straw cutter.

4. The machine is simple in its construction, made and put together very strongly. It is therefore not so liable as the complicated machines in general use to get out of order.

AGRICULTURAL IMPLEMENTS, &c.

The Proprietors of the New England Agricultural Warehouse and Seed Store No. 51 and 52 North Market street, would inform their customers and the public generally that they have on hand the most extensive assortment of Agricultural and Horticultural Tools to be found in the United States. Part of which are the following:

1000 Howard's Patent Cast Iron Ploughs.	100 doz. Cast Steel Shovels.
300 Common do. do.	150 " Common do.
200 Cultivators.	100 " Spades.
100 Greene's Straw Cutters.	500 " Grass Scythes.
50 Willis' do. do.	300 " Patent Snaiths.
100 Common do. do.	200 " Common do.
100 Willis' Patent Corn Shellers.	500 " Hay Rakes.
50 Common do do.	200 " Garden do.
200 Willis' Seed Sowers.	200 " Manure Forks.
50 " Vegetable Cutters.	300 " Hay do.
50 Common do. do.	500 Pair Trace Chains.
200 Hand Corn Mills.	100 " Truck do.
200 Grain Cradles.	100 Draft do.
100 Ox Yokes.	500 Tie up do.
1500 Doz. Scythe Stones.	50 doz. Halter do.
3000 " Austin's Rifles.	1000 yards Fence do.
March 17.	25 Grind Stones on rollers.

SOUTHDOWN STOCK.

For sale by the subscriber at the foot of Atwell's Avenue in the city of Providence, one imported Southdown Buck, Six Ewes and four Lambs. The above are of the purest blood, and second to none in the country.
June 8. 8w JOHN GILES.

NEW ENGLAND FARMER.

A WEEKLY PAPER.

Terms, $2 per year *in advance*, or $2 50 if not paid within thirty days.

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TUTTLE AND DENNETT, PRINTERS.